



Lead-Safe Renovation Hands-On Skills Training Transcript for Interior Work Practices Video

This video covers establishing interior containment, covering immovable objects, setting up signs, barriers and flapped entry doors, final cleaning, visual inspection, cleaning verification, and bagging waste. These topics will be covered as they would for a real job from start to finish.

This exercise demonstrates how to properly conduct lead-safe work on the interior of a home, including when and how to remove or cover furniture; how to cover floors, seal doors and HVAC systems; where to establish critical barriers to the work area; how to clean after work has been completed; how to conduct the visual inspection and cleaning verification; and finally, how to properly gooseneck bagged waste.

Supplies needed for Interior Lead-Safe Work Practices include:

- Heavy duty plastic sheeting
- Cutting tool
- Tape
- Barrier tape/Warning signs/Orange cones
- Tape measure
- Disposable tack pad
- Stapler
- Dowel
- HEPA vac
- Spray bottle/garden sprayer
- Wet wipes
- Flashlight
- PPE

Establishing Interior Containment

Before laying plastic, walk through the work area and close all doors and windows leading to or from the work area.

Tape the seams around each door and window casing with painters tape.

Step 1. Cut plastic sheeting so that it covers all exposed surfaces within 6 feet of components that will be affected by the work. Here, we will be working on the window on the right side of the screen.

Step 2. Put down any runners that you plan on using for accessing the work area, this will keep workers from tracking debris on carpets or floors when walking out of the work area. Make sure these are secured to the floor with tape.

Step 3. Close and cover all air and heat diffusers and intakes, and if it's possible, turn off the HVAC system altogether until cleaning verification has been achieved.



Covering or removing furniture

Remove all furniture from the work area. Removing all of the furniture will save time and materials. If, however, there are pieces of furniture that cannot be removed they will need to be properly covered using the method shown here.

Step 1. Cover the floor with plastic within the work area. Tape it completely to the walls and floor around the edges. Cut around the immovable furniture so that the plastic on the floor can lay flat.

Step 2. Cut a piece of plastic large enough to cover the immovable object and secure it with tape. Using painters tape on the walls will prevent damage to the paint on the walls, while using duct tape to tape plastic to plastic will give a secure seam.

Everything within 6 feet of surfaces that will be renovated, repaired or painted needs to be removed or covered, including window treatments, furniture and rugs.

Now that everything in the work area has been covered or removed, **stage your tools** on the plastic sheeting within the work area along with any other equipment that will be used to conduct the renovation, repair or painting work. Bringing your tools into the work area before starting the job will save having to bring them through the flapped door entry.

Once your tools are staged, close off your work area with a flapped entry door.

A **flapped entry door** is created by covering the work area entry doorway with 2 layers of plastic sheeting.

Step 1. Cut the first piece of plastic slightly bigger than the door frame so that it can be completely adhered to the frame.

Step 2. Use duct tape to create a vertical line about the size of a man from floor to header in the middle of the plastic sheeting on both sides. Use duct tape horizontally at the top and bottom to reinforce the plastic after it is cut.

Step 3. Make a small “S” fold at the top of the plastic sheeting and tape so that all layers are secured to the top of the door frame. Make a similar “S” fold at the bottom of the plastic sheeting and tape so that all layers are secured to the floor. This will ensure the plastic is not tight and allow for people to move through it. You might want to staple the plastic to the door frame for a stronger hold, but make sure you have the owner’s permission before doing so.

Step 4. Cut a long vertical slit through the duct tape, leaving about 6 inches at the top and the bottom uncut and reinforce the top and the bottom with horizontal duct tape to prevent the plastic from tearing.

Step 5. Measure and cut a second sheet of plastic sheeting. This piece should be slightly shorter than the door frame so that it will hang down flat against the first sheet of plastic. Tape this to the top of the door frame.



Step 6. Weight the bottom of the second layer of plastic sheeting by taping a dowel rod to the bottom with duct tape. This creates a self-sealing flap over the doorway and seals the opening that was cut into the first sheet of plastic. Once attached, the dowel should be situated about 3 inches off the floor.

An alternative to creating this T door is to set up a Z door. We will quickly demonstrate this entry door now.

A Z door requires three sheets of plastic. To use this properly, the plastic on the floor needs to be curbed so that any dust or debris is contained within the work area. The first piece of plastic is taped to the top and left side of the doorway. The second is taped to the top and right side of the doorway and the last piece of plastic is taped in the same method as the first piece, to the top and left. This door creates a weave entrance in which a worker enters by Z-ing through the alternating sheets. Put a series of S folds in the sheets while taping them to the door frame. This will allow for a greater range of motion for entering and exiting through a Z-doorway.

To complete the containment you need to **control access** to your work area. Ask occupants to leave and remain out of the room where work is being done until after the cleaning verification procedure is complete or clearance is passed. Further, you need to place “Do Not Enter” signs at the entrance to your work area and put up barrier tape to keep occupants away and aware that work is being done.

Lastly, you’ll want to lay down a **tack pad** to help keep dust and debris that may be on worker shoes or boot covers from being tracked into non-work areas. The plastic runners that were discussed earlier are another option.

At End of Day or End of Work -- Interior Final Cleaning

Once the work has been completed your tools need to be cleaned and removed from the work area before you can start cleaning. Vacuum off tools with the HEPA vacuum, or wipe them down with wet wipes. Using the plastic runners and tack pad, workers can take the cleaned tools out of the work area.

Step 1. The first step of interior cleaning is to wrap, seal or bag in plastic all removed components and other large materials or debris created during the renovation work. HEPA vacuum off the plastic waste bags or wraps, remove from the work area and place in appropriate waste containers.

Step 2. Working top to bottom and from the inner most region of the work area towards the entry door, vacuum the walls and all plastic sheeting using the HEPA vacuum.

HEPA vacuum yourself. At this point workers can remove their tyvek suit, but leave on boot covers, non-latex gloves, eye protection and respirators.

Step 3. Mist the plastic sheeting and fold dirty side inward when removing it. Either seal the edges of the folded plastic with tape or place folded sheeting in a heavy duty plastic bag. Used plastic must be disposed.



Step 4. Clean all surfaces within the work area and in the area 2 feet beyond the work area until no dust or debris remains. Start cleaning at the top of the wall and work down toward the floor. HEPA vacuum or wet wipe all the wall surfaces in the work area. HEPA vacuum all remaining surfaces in the work area, including furniture and fixtures. Use the upholstery attachment for the window surfaces and the crevice tool along the edge of the walls. Use the HEPA vacuum with a beater bar for carpeting.

Step 5. Wipe all remaining surfaces and objects in the work area except for carpeted and upholstered surfaces, with a disposable wet cleaning wipe. Mop uncarpeted floor using the two-bucket method of wet mopping. Mop strokes should be in long S motions. Work from the end farthest from the work area entrance back toward the entrance. Make sure never to step back into areas that have already been cleaned.

Step 6. If the property receives HUD funds, and as a best practice, repeat the cleaning procedure for walls, countertops and floors.

Step 7. After completing the cleaning procedure, check your work. Conduct a careful visual inspection of the work area looking for visible dust and debris. If visible dust or debris is found, repeat the cleaning procedure.

After completing the visual inspection, the T door can be taken down but tape barriers and DO NOT ENTER signs need to remain in place to control the work area.

Step 8. Once the cleaning procedure is complete and you've rechecked your work notify the certified renovator in charge of the project that the work area is clean and ready for final visual and cleaning verification inspections.

Final Visual Inspection

The visual inspection may only be conducted by a **certified renovator**.

Step 1. PPE required for visual inspection. When conducting a visual inspection make sure that you are wearing boot covers so that you do not track any dust or debris into the work area.

Step 2. Turn on all the lights in the work area and bring a bright white-light flashlight along to ensure adequate lighting.

Step 3. Systematically look at every horizontal surface in the work area. If you find dust and debris, re-clean the work area and repeat the visual inspection until it passes.

Step 4. Once you have carefully inspected all of the surfaces and have found no dust or debris the certified renovator may proceed to the cleaning verification procedure.

Cleaning verification

The cleaning verification may only be conducted by a **certified renovator**.



Step 1. As you enter the work area put on disposable foot covers so that you do not track dust and debris into the work area. Wear latex or non-latex plastic gloves.

Step 2. While wearing gloves, use a long handled mop with disposable wet pad. Wipe no more than 40 square feet per each new wet pad.

- Compare each pad used to the cleaning verification card.
- If the used wipe looks the same or lighter than the cleaning verification card, the floor is clean.
- If the used wipe is darker than the verification card you must re-clean the failed floor section by washing the floor with a wet cleaning wipe. Repeat the cleaning verification process.
- If the floor section fails a second time, you need to re-clean, wait an hour for it to dry, and then use an electrostatically charged dry cloth to complete the cleaning process. You do not need to compare the dry cloth with the cleaning verification card.

Cleaning verification is also required for every window sill, countertop and horizontal surface within the work area. Use a new wipe for each window sill. A countertop may be wiped in its entirety with one wipe unless it is over 40 square feet.

Bagging Waste

When bagging waste, be sure to not overfill the bag.

Step 1. Gather the open end of the bag just below the neck of the bag and insert the HEPA vacuum. Use the vacuum to remove excess air from the bag. This prevents the bag from popping during disposal.

Step 2. Remove the vacuum hose and twist the neck of the bag to form an 8-10 inch column.

Step 3. Fold the twisted column over on itself in a similar manner to how you would fold a hose over onto itself to cut off the flow of water.

Step 4. Grasp the folded neck of the bag in one hand and wrap tape around the folded neck to secure the fold in place

Step 5. Now wrap the tape about 2 or 3 inches from the top of the fold several times so that the bag cannot come open. This should leave a loop handle on the top

Step 6. Lastly, use your HEPA vacuum to remove any dust from the exterior of the bags.

Once you've passed the cleaning verification and disposed of all the waste you can remove the signs and critical barriers around the work area.